

The Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claim 1. (Currently Amended) An immiscible polymer blend comprising 60% or greater high density polyethylene (HDPE) and 40% or less polycarbonate (PC) or 60% or greater HDPE and 40% or less of a mixture of acrylonitrile-butadiene-styrene (ABS)[I.] and PC, wherein said HDPE has a melt flow of bottle grade HDPE at 190°C/2.16Kg of less than 1g/10min, and said PC or said mixture of PC and ABS has a melt flow of an injection molding grade PC or an injection molding grade PC and ABS mixture, respectively, at 190°C/2.16Kg greater than 1g/10min, and wherein the ratio of HDPE to PC or HDPE to the mixture of ABS and PC provides a blend having a modulus greater than the additive contribution of each polymer to overall stiffness and wherein the amount of HDPE and the amount of PC or the amount of the mixture of ABS and PC when added together equal 100%.

Claim 2. (Cancelled)

Claim 3. (Previously Presented) The polymer blend of claim 1 which comprises HDPE and PC.

Claim 4. (Previously Presented) The polymer blend of claim 1 which comprises HDPE, ABS and PC.

Claims 5 – 10. (Cancelled)

Claim 11. (Original) A plastic or polymer composite article formed of the polymer blend of claim 1.

Claim 12. (Previously Presented) The plastic article of claim 11 which is formed into the shape of lumber.

Claim 13. (Original) The plastic article of claim 11 which is a railroad tie.

Claim 14. (Original) The plastic article of claim 11 which is a marine piling.

Claim 15. (Currently Amended) A method of making a plastic or polymer composite article, comprising:

(a) preparing an immiscible polymer blend comprising 60% or greater high density polyethylene (HDPE) and 40% or less polycarbonate (PC) or 60% or greater HDPE and 40% or less of a mixture of acrylonitrile-butadiene-styrene (ABS), and PC, wherein said HDPE has a melt flow of bottle grade HDPE at 190°C/2.16Kg of less than 1g/10min, and said PC or mixture of PC and ABS has a melt flow of injection molding grade PC or mixture of PC and ABS, respectively, at 190°C/2.16Kg greater than 1g/10min and wherein the ratio of HDPE to PC or HDPE to the mixture of ABS and PC provides a blend having a modulus greater than the additive contribution of each polymer to overall stiffness and wherein the amount of HDPE and the amount of PC or the amount of the mixture of ABS and PC when added together equal 100%; and

(b) shaping the blend into a desired shape of the article.

Claim 16. (Original) The method of claim 15 wherein said preparing and shaping comprise continuous extrusion.

Claim 17. (Original) The method of claim 15 wherein said preparing comprises extrusion.

Claim 18. (Original) The method of claim 15 wherein said shaping comprises molding.

Claim 19. (Original) The method of claim 15 wherein said preparing and shaping comprises injection molding.

Claim 20. (New) The polymer blend of claim 3, wherein at least one of said HDPE or PC is recycled.

Claim 21. (New) The polymer blend of claim 4, wherein at least one of said HDPE, ABS or PC is recycled.

Claim 22. (New) The method of claim 15, wherein at least one of said HDPE or PC in a blend comprising HDPE and PC or at least one of HDPE, ABS, or PC in a blend comprising HDPE and a mixture of ABS and PC is recycled.

Claim 23. (New) An immiscible polymer blend consisting essentially of high density polyethylene (HDPE) and acrylonitrile-butadiene-styrene (ABS), wherein said HDPE has a melt flow of bottle grade HDPE, said ABS has a melt flow of an injection molding grade ABS, and the ratio of HDPE to ABS provides a blend having a modulus greater than the additive contribution of each polymer to overall stiffness.

Claim 24. (New) An immiscible polymer blend consisting essentially of high density polyethylene (HDPE) and polycarbonate (PC), or HDPE and a mixture of acrylonitrile-butadiene-styrene (ABS) and PC, wherein said HDPE has a melt flow of bottle grade HDPE, said PC or said mixture of PC and ABS has a melt flow of injection molding grade PC or injection molding grade PC and ABS mixtures, respectively, and the ratio of HDPE to PC or HDPE to the mixture of ABS and PC provides a blend having a modulus greater than the additive contribution of each polymer to overall stiffness.